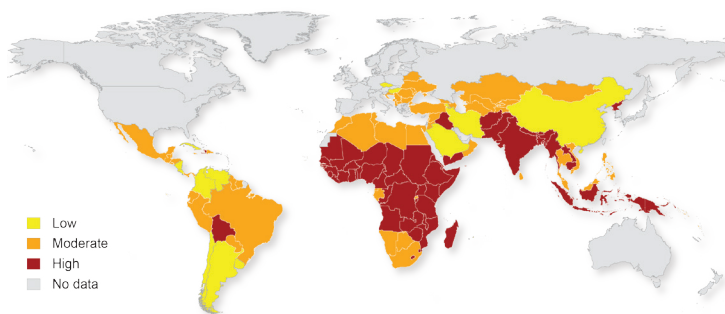


Fighting Hidden Hunger with More Nutritious Foods



THE PROBLEM

More than 2 billion people in the world—1 in 3 people—do not get enough essential vitamins and minerals (micronutrients), such as vitamin A, zinc, and iron, in their daily diets. Their condition is known as “hidden hunger” because those suffering from this type of undernutrition often appear healthy, but are actually more vulnerable to illness and infections. In severe cases, hidden hunger can leave children blind, stunted, or with a reduced IQ, and increase a woman’s risk of dying during childbirth.



This map shows worldwide severity of the most common micronutrient deficiencies— vitamin A, anemia, and zinc—using World Health Organization (WHO) children under 5 prevalence data.

THE SOLUTION

A diverse diet that includes nutritious foods such as vegetables, leafy greens, fruit, and animal products is the ideal way to provide the micronutrients needed for good health. However, millions of people—mostly those living in developing countries—rely on staple foods such as cassava or rice that fill up their stomachs but provide insufficient micronutrients. More nutritious foods are often expensive or simply unavailable.



WHY BIOFORTIFICATION?

Targeted: More nutritious staple foods can reach rural communities often missed by other nutrition interventions such as dietary supplementation and food fortification.

Cost-effective: Breeding the nutrient into a crop variety takes an up-front investment, but once the trait is added, it is retained. The crop can be adapted to thrive in a range of agroecological zones at low cost.

Sustainable: This strategy is based on staple foods that people already eat regularly. In most cases, farmers can save the seeds or cuttings to replant, and share them freely with their neighbors.

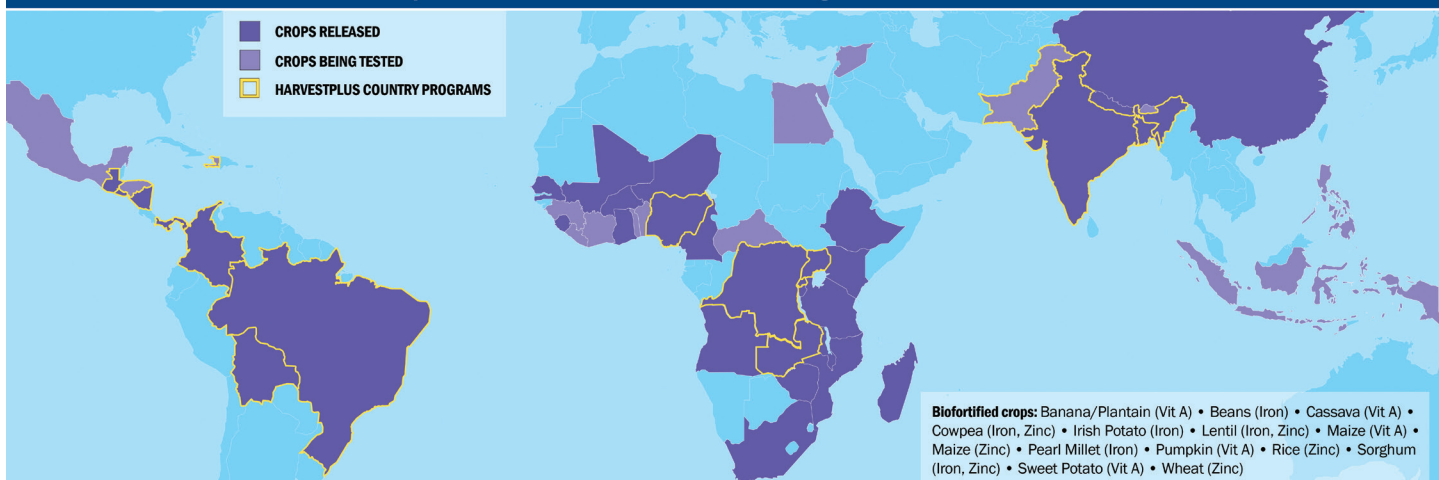
A NEW APPROACH

HarvestPlus and its partners develop new, more nutritious varieties of staple food crops that provide higher amounts of vitamin A, iron, or zinc, the three micronutrients identified by the World Health Organization as most lacking in diets globally. This process is known as biofortification. These crops include vitamin A cassava, orange sweet potato and maize; iron beans and pearl millet; and zinc rice and wheat. These biofortified crops have been conventionally bred, are high yielding, and resistant to threats such as pests, diseases, heat and drought.

OUR WORK

We work with diverse partners from government, business, and civil society to (1) develop, test and release biofortified crops, (2) educate farmers and consumers on the benefits of these crops, and (3) build markets—all to ensure that nutritious foods reach as many people as possible. We have direct field operations in many countries in Africa, Asia, and Latin America.

Countries where biofortified crops have been released or are being tested



LOOKING AHEAD

More than 30 countries have released or made biofortified crops available to farmers, and another 16 countries are evaluating these crops (see map). We are developing a growing body of scientific evidence on nutritional benefits, consumer acceptance, and cost-effectiveness of biofortification. This evidence and the technologies we develop are being applied to scale up and integrate biofortification into policies and programs globally, including those to improve food security and livelihoods.

With new biofortified crops in the pipeline and working with partners, we expect that 15 million farming households will be growing and consuming biofortified nutritious foods by 2020 and that, in total, 100 million people will have access to these foods. By 2030, we anticipate that 1 billion people will be benefitting from biofortified foods.



HarvestPlus improves nutrition and public health by developing and promoting biofortified food crops that are rich in vitamins and minerals, and providing global leadership on biofortification evidence and technology. HarvestPlus is part of the CGIAR Research Program on Agriculture for Nutrition and Health (A4NH). CGIAR is a global agriculture research partnership for a food secure future. Its science is carried out by its 15 research centers in collaboration with hundreds of partner organizations. The HarvestPlus program is coordinated by two of these centers, the International Center for Tropical Agriculture (CIAT) and the International Food Policy Research Institute (IFPRI).



**RESEARCH
PROGRAM ON**
**Agriculture for
Nutrition
and Health**

LED BY IFPRI

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